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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,565	07/02/2001	Daniel Coffman	YOR9-1999-01	1503

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EXAMINER	
BULLOCK JR, LEWIS ALEXANDER	
ART UNIT	**PAPER NUMBER**
2127	

DATE MAILED: 02/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/806,565	COFFMAN ET AL.	
	Examiner	Art Unit	
	Lewis A. Bullock, Jr.	2127	

-- The MAILING DATE of this communication appears n the cover sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25-124* is/are pending in the application.

4a) Of the above claim(s) *60-96,123 and 124* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25-59 and 97-122* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 25-59 and 97-122 in the reply filed on 10/7/04 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 25-36, 40-59 and 97-122 are rejected under 35 U.S.C. 103(a) as being unpatentable over HOLM (U.S. PATENT 5,850,629).

As to claim 25, HOLM teaches a conversational computing system, comprising: a multi-modal CUI manager (text-to-speech conversion application), operatively connected to a plurality of I/O renderers (engines / controller / DLLs), for receiving input queries and input events (selection of text) across different user interface modalities (plurality of client processes, i.e. transport control process, the dialog box control process, and the dictionary editor processor, of the application that is used to input queries or events for a particular function (col. 9, lines 11-58)) and generating output

messages and output events (speech) in connection with an active application (via user selecting play button) (col. 3, lines 23-35) in one or more the different user interface modalities (col. 9, lines 11-58); a conversational kernel (windows kernel) for generating multi-modal dialogs (speech) in response to the input queries and input events, and for managing context associated with the active application (make sure TTS conversion application has the input keyboard focus) (col. 3, lines 40-53); and a conversational API (speech API) (col. 8, lines 40-66; col. 9, lines 26-35). It would be obvious that since the application communications with the kernel in order to transform text into speech that the application uses the kernel DLL or the controller which complies to a speech API for the communication.

As to claim 26, 40, and 41, HOLM teaches a conversational engine API (controller); and a plurality of conversational engines (engine / DLLs), wherein the conversational kernel (windows kernel) controls and accesses the conversational engines (engine / DLLs) through the conversational API (controller), to process the input queries and input events (text data) and to generate the multi-modal dialog and output events (speech) (col. 8, lines 40-67; col. 9, lines 3-7; col. 9, lines 11-35).

As to claims 27 and 28, HOLM teaches the kernel (Windows kernel) provides conversational services and behaviors (kernel DLL / engine functions) that are accessible by an application (target application) through the API (controller) wherein the

services are formatting (change text to speech) (col. 8, lines 40-67; col. 9, lines 3-7; col. 9, lines 11-35).

As to claims 29-33, HOLM teaches the API comprises a library of functions (col. 8, lines 40-67; col. 9, lines 3-7; col. 9, lines 11-35). However, HOLM does not teach that the functions are implemented in a declarative language. Official Notice is taken in that it is well known in the art that speech functions are implemented in a declarative language, i.e. XML. Therefore, it would be obvious to the teachings of HOLM that that the functions are XML functions.

As to claims 34-36, HOLM teaches the system executes on any suitable operating system environment (col. 3, lines 1-23). Official Notice is taken in that computer systems having operating systems wherein a virtual machine executes on top of the operating system are well known in the art and therefore would be obvious with the teachings of HOLM in order to convert text to speech on an operating system environment having a virtual machine.

As to claims 42-52, HOLM teaches a kernel for conversational processing (col. 8, lines 12-26; col. 8, line 53 – col. 9, line 36) and the system executes on any suitable operating system environment (col. 3, lines 1-23). However, HOLM does not teach the kernel comprising a task manager, a resource manager, an I/O manager and a context stack. Official Notice is taken in that it is well known in the art that a kernel has a task

manager, a resource manager, an I/O manager, and a context stack and therefore would be obvious with the teachings of HOLM in order to manage task, resources, and I/O related to conversations, i.e. speech or voice commands.

As to claims 53-59, HOLM teaches exchanging information (output) with a conversational aware system (speaker system) wherein the aware system is a remote device (speaker system) (col. 9, lines 60-67). However, HOLM does not teach that the communication is through a communication stack. Official Notice is taken in that it is well known in the art that communication from one device to another is through a communication stack.

As to claim 97-99, HOLM teaches a conversational system, comprising: a kernel (windows kernel) adapted to manage dialog and context, conversational engines (engines / DLLs) and resources (engine output driver) and communication across devices (conversational system / amplifier / speaker system) having different user interface modalities (plurality of client processes, i.e. transport control process, the dialog box control process, and the dictionary editor processor, of the application that is used to input queries or events for a particular function (col. 9, lines 11-58)) (col. 9, lines 60-67; col. 3, lines 23-35; col. 3, lines 40-53); and an API (speech API) (col. 8, lines 40-66; col. 9, lines 26-35). It would be obvious that since the application communications with the kernel in order to transform text into speech that the application uses the kernel

DLL or the controller which complies to a speech API for the communication. HOLM also teaches the system executes on any suitable operating system environment (col. 3, lines 1-23). Official Notice is taken in that computer systems having operating systems wherein a virtual machine executes on top of the operating system are well known in the art and therefore would be obvious with the teachings of HOLM in order to convert text to speech on an operating system environment having a virtual machine.

As to claim 100, HOLM teaches an engine API (controller) comprising abstractions adapted to access a conversational engine (engine / DLLs) (col. 8, lines 40-67; col. 9, lines 3-7; col. 9, lines 11-35).

As to claims 101-103, HOLM teaches the API comprises a library of functions (col. 8, lines 40-67; col. 9, lines 3-7; col. 9, lines 11-35). However, HOLM does not teach that the functions are implemented in a declarative language. Official Notice is taken in that it is well known in the art that speech functions are implemented in a declarative language, i.e. XML. Therefore, it would be obvious to the teachings of HOLM that that the functions are XML functions.

As to claims 104-107, HOLM teaches a kernel for conversational processing (col. 8, lines 12-26; col. 8, line 53 – col. 9, line 36) and the system executes on any suitable operating system environment (col. 3, lines 1-23). However, HOLM does not teach the kernel comprising a task manager, a resource manager, an I/O manager and a context

stack. Official Notice is taken in that it is well known in the art that a kernel has a task manager, a resource manager, an I/O manager, and a context stack and therefore would be obvious with the teachings of HOLM in order to manage task, resources, and I/O related to conversations, i.e. speech or voice commands.

As to claims 108-115, HOLM teaches the API comprises conversational protocols adapted to provide distribution of functions (output) and components of the conversational system across multiple devices (amplifier / speaker system) (col. 9, lines 60-67).

As to claims 116-122, HOLM teaches that the system is a speech-enabled device (translates text to speech) (col. 8, lines 40-66; col. 9, lines 26-35). However, HOLM does not teach that the system is implemented in a programming language. Official Notice is taken in that it is well known in the art that a virtual machine is implemented in a programming language.

1. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over HOLM (U.S. Patent 5,850,629) in view of "The Performance of the Container Shipping I/O System" by ANDERSON.

As to claims 37-39, HOLM teaches the system executes on any suitable operating system environment (col. 3, lines 1-23). However, HOLM does not teach an I/O API. ANDERSON teaches an operating system having an I/O API for interfacing the

plurality of I/O resources (pg. 229, 2nd and 4th paragraph). Therefore, it would be obvious to one skilled in the art at the time of the invention to combine the teachings of HOLM with the teachings of ANDERSON in order to facilitate copy-free I/O in a uniform, device-independent way (pg. 220, 1st paragraph).

Response to Arguments

2. Applicant's arguments filed 10/7/04 have been fully considered but they are not persuasive. Applicant argues that Holm does not a conversational computing system comprising a multi-modal CUI manager connected to a plurality of I/O renderers for receiving input queries and input events across different user interface modalities because Holms disclose a single input modality, GUI, for Windows applications. The examiner disagrees. The claims disclose the manager receives input queries and input events across different user interface modalities. The claims make no mention of how the user interface modalities are different. The difference could relate to the type of modality, i.e. sound or visually modalities, or that one functions differently than the other a visually modality is used to input queries or events for a particular function and another visually modality is used to input queries or events for another different function. Holm teaches a plurality of client processes, i.e. transport control process, the dialog box control process, and the dictionary editor processor, of the application that is used to input queries or events for a particular function (col. 9, lines 11-58). Therefore, Holm teaches a manager for receiving input queries and input events across different user interface modalities (different client processes).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER

February 2, 2005